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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,545	09/23/2003	Joshua T. Goodman	MS303964.1/MSFTP440US	4645

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EXAMINER	
HOMAYOUNMEHR, FARID	
ART UNIT	**PAPER NUMBER**
2139	

NOTIFICATION DATE	DELIVERY MODE
06/27/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/669,545	GOODMAN ET AL.	
	Examiner	Art Unit	
	Farid Homayounmehr	2139	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,8,11,15-25,27 and 29-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 8 11, 15-25, 27, 29-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: application, filed 9/23/2003; amendment filed 4/1/2008.

2. Claims 1, 8-11, 15-25, 27, 29-31 are pending in the case. Claims 2-7, 26, 28 and 32-70 have been cancelled by the applicant.

Response to Arguments

3. Applicant's argument is centered around the new limitation of: "wherein the order-based HIP problem utilizes three-dimensional ordering, and a user is given a three-dimensional image and asked to identify order of characters from front to back, from left to right, and from largest object to smallest object, and wherein size of the characters and/or size of shapes and/or objects employed in the three-dimensional image is varied, and wherein a sufficient number of visual elements that provide hints of correct order and hints of identities of the characters or objects is included in the three-dimensional ordering to make the HIP problem solvable by a human"

However, applicant's argument is moot in view of the new grounds of rejection outlined in the next section.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 8-11, 15-25, 27, 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinkas (US Patent No. 7,149,899, filed April 25, 2003), in view of Mizrah (U.S. Patent Application Publication No. 2004/0225880, filed 5/7/2003), and further in view of "Early Learning Grades PreK-2 Education Standards Correlations" (hereinafter called PreK-2 Standard) published on the web in 2002.

5.1. As per claim 1, Pinkas is directed to a system that facilitates identifying human interaction (abstract) comprising a computer processor executing software components, the software components recorded on a computer-readable medium and being executed by the computer processor: an access control component that controls access to one of a computer-based action and computer-based application (parag. 21-22 describes an authentication system, which is a form of an access control to computer applications); and an identification component that facilitates determining that access is initiated by a human (parag. 21, where RTT distinguishes between a human and an automated program), the identification component presenting an order-based human

interactive proof (HIP) problem to be solved before access is allowed (the pin must be identified by the user and returned to the server for authentication. The pin must be entered in sequence, and therefore representing a solution to an order-based problem. This is clearly shown by Pinkas in, for example, parag 34. Also, paragraph 21 shows a human interaction is detected and use of RTT is suggested, and therefore teaching the order-based problem being an order-based human interactive proof (HIP)), the order-based problem comprising an arrangement of a plurality of objects whereby a user is asked to correctly identify at least a subset of the objects as well as to identify them in a particular order (the pin is comprised of characters, which are a form of an object, and must be recognized and entered in order as described in rejection of claim 1) the order being based at least in part upon a set of instructions provided to the user (parag 31 to 34 indicates that the user must follow instructions to enter the PIN), and the identification component communicating with an order-based problem database to retrieve order-based problems as needed (As shown in Fig. 1 and associated text, the PIN is generated in item 103, which is in communication with the server. Note also that paragraph 32 shows that the PIN information is stored in memory).

Also, Pinkas teaches the order-based problem being a "start to end" HIP wherein a user is required to find a path of a consistent type and identify objects such as characters along the path (per parag. 24, the characters must be recognized along a path from start to end. Pinkas suggests recognizing characters along a path. However,

Pinkas does not specifically suggest recognizing a path. Mizrah clearly teaches recognizing a path by the user in Figs. 8-12 and associated text.
Pinkas and Mizrah are analogous art as they are both directed to establishment of a secure channel between a user and a server. At the time of invention, it would have been obvious to a person skilled in art to incorporate Mizrah's teachings of recognizing a path to the system of Pinkas. The motivation to do so is suggested by Pinkas paragraph 24, where it suggests mapping the characters in different locations on screen, and also use of different patterns that is recognizable by a human).

Examiner takes the Official Notice that addition of noise to partially obscure the image such that recognition is made more difficult was well known in the art, and therefore obvious to the one skilled in art. An example is found in US Patent No. 6'195'698 to Lillibridge, col. 3 lines 12-17. Therefore, it would have been obvious to improve Pinkas in view of Mizrah to include noise to partially obscure the displayed image, and make pattern recognition more difficult for machines.

Also, Pinkas and Mizrah teach the path being a consistent type comprising a subset of objects which are connected by a consistent type of connector, the connector being selected from a group consisting of any one of arrows, lines, dotted lines, dashed lines, and shapes (use of arrows to describe the path is suggested by Mizrah Fig. 9 and associated text).

Pinkas in view of Mizrah teach the art of using images recognizable by humans for authenticating a human being. However, Pinkas in view of Mizrah does not explicitly show the use of 3-D images for the same purpose. Therefore, Pinkas in view of Mizrah does not explicitly teach the order-based HIP problem utilizing three-dimensional ordering, and a user given a three-dimensional image and asked to identify order of characters from front to back, from left to right, and from largest object to smallest object, and wherein size of the characters and/or size of shapes and/or objects employed in the three-dimensional image is varied.

As indicated by PreK-2 Standard, it is an expected standard that children learn to recognize, name, draw, compare, and sort two and three-dimensional shapes. Children are expected to investigate and predict the results of putting together and taking apart two and three-dimensional shapes (see page 2, section titled Geometry Standard for Grades PreK2). Therefore, it was known in the art that humans can recognize three dimensional shapes and their associated characteristics, such as size, specific shape, and location relative to one another. Pinkas in view of Mizrah teach using human's capability to recognize characteristics of the two dimensional shapes to authenticate a human. Therefore, it would have been obvious to enhance the method of Pinkas in view of Mizrah to use three dimensional shapes, in addition to two dimensional shapes, to authenticate a human. The motivation to do so would have been to take advantage of more complex characteristics of three dimensional shapes, which makes it more difficult for a machine (not a human) to recognize the characteristics;

Pinkas in view of Mizrah, and further in view of PreK-2 Standard also teach providing hints of identities of the characters or objects to be included in the three-dimensional ordering to make the HIP problem solvable by a human, as shown, for example, in Mizrah claim 2.

Therefore, claim 1 is made obvious by the combination of Pinkas in view of Mizrah, and further in view of Mizrah.

5.2. Limitations of claims 8-11, 15-24 are directed to use and modification of different types of shapes and patterns, inclusion of background and foreground noise to partially obscure the objects, use of different colors, sizes and other modifications to the image to make it recognizable by human and not by a machine, which are well know techniques to a person skilled in the art. Barring any unexpected results, all modifications and addition of noise included in claims 8-11, 15-24 would have been obvious to a person skillful in the art of human interaction detection.

5.3. Limitations of claims 25, 27, 29-30 are substantially the same as claims 1, 8-11, 15-24 above.

5.4. As per claim 31, Pinkas in view of Mizrah, and further in view of PreK-2 Standard is directed to the method of claim 30, the acceptable answer being at least one of the

following: a correct answer; and an answer consistently received from a percentage of users, whereby the percentage exceeds a minimum threshold (a correct answer is an acceptable answer in Pinkas).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farid Homayounmehr whose telephone number is (571)

272-3739. The examiner can be normally reached on 9 hrs Mon-Fri, off Monday biweekly.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Farid Homayounmehr

6/16/2008

/Kristine Kincaid/

Supervisory Patent Examiner, Art Unit 2139